THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CARL R. MACKERER, TIMOTHY A. ROY
and GARY R. BLACKBURN

Appeal No. 96-2803
Application No. 08/255,542[1]

ON BRIEF

Before JOHN D. SMITH, OWENS and KRATZ, Administrative Patent Judges.

JOHN D. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the final rejection of claims 21, 22, 26, 27 and 29-33.

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[1] Application for patent filed June 6, 1994. According to the appellants, the application is a continuation of Application No. 07/976,030, filed November 13, 1992, now abandoned.

The subject matter on appeal is directed to a process for reducing the mutagenicity of materials derived from coal tar which include polynuclear aromatic compounds having three to seven fused rings (such as benzopyrene) by alkylating the coal tar in the presence of an acid catalyst with an alkylating agent to introduce a branched chain alkyl group of three to five carbon atoms into the polynuclear aromatic compounds. Representative claim 21 is reproduced below:

21. A process for reducing the mutagenicity of a coal tar containing polynuclear aromatic compounds having three to seven fused aromatic rings, comprising the step of contacting the polynuclear aromatic containing coal tar having an initial mutagenicity index value greater than zero with an alkylating agent in the presence of an acid catalyst under alkylation conditions to introduce an branched chain alkyl group of three to five carbon atoms into the polynuclear aromatic compounds to reduce the mutagenicity of the polynuclear aromatic containing
coal tar to a level less than the initial mutagenicity index value.

The references of record relied upon by the examiner are:

Rehner et al. (Rehner)	2,833,834	May 6, 1958
Longwell et al. (Longwell)	4,409,094	October 11, 1983
Wise	3,251,897	May 17, 1966
Wadlinger et al. (Wadlinger)	3,308,069	March 7, 1967
Rubin et al. (Rubin)	4,954,325	September 4, 1990

Speight, James G. (Speight), The Chemistry and Technology of Petroleum, Second Ed., pps. 529-532 and 545-549, Marcel Dekker, Inc., copyright 1991.

Appealed claims 21, 22, and 29 stand rejected under 35 U.S.C. § 103 as unpatentable over Rehner in view of Longwell. Claims 26 and 27 stand rejected under 35 U.S.C. § 103 as unpatentable over Rehner in view of Longwell and Speight. Claims 30-33 stand rejected under 35 U.S.C. § 103 as unpatentable over Rehner in view of Longwell further in view of "admitted prior art", Wadlinger, Rubin, or Wise.

We cannot sustain the stated rejections.

The examiner's conclusion that the claimed process would have been obvious to a person of ordinary skill in the art depends on whether there is any suggestion in Rehner of using an alkylating agent to introduce "an branched chain alkyl group of three to five carbon atoms" into a polynuclear aromatic compound to reduce its mutagenicity. For this purpose, Rehner discloses that the introduction of alkyl groups having about eight carbon atoms, e.g., through the use of a diisobutylene alkylating agent, into carcinogenic polynuclear aromatic compounds successfully reduced the carcinogenicity of oil feeds containing these compounds. More

significantly, Rehner discloses that "fundamental work" established that "carcinogens present in high boiling catalytic stocks are generally polynuclear aromatic compounds which are either devoid of alkyl groups attached to the aromatic nuclei or alternatively have a few low molecular weight, alkyl groups attached to the nuclei." See Rehner at column 2, lines 3-9. As appellants point out, the examiner's contention that it would have been obvious to modify the Rehner process by using olefin alkylating agents having three to five carbon atoms in place of the described eight carbon atom alkylating agents "because the similar structures of the olefins would result in the expectation of products having similar properties as Rehner" (answer, pages 5) represents an unreasonable expectation which is "in the opposite direction" from the Rehner's teaching, i.e., that polynuclear aromatic compounds having low molecular alkyl group moieties attached to the aromatic nuclei are carcinogenic. Since none of the "secondary references" remedy the basic and fundamental deficiencies in Rehner, we are constrained to reverse the stated rejections.

REVERSED

JOHN D. SMITH Administrative Patent Judge	)
TERRY J. OWENS Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
PETER F. KRATZ Administrative Patent Judge	)

jrg

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Appeal No. 96-2803

Serial No. 08/255,542

Judge JOHN D. SMITH

Judge OWENS

Judge KRATZ

Received: 8/9/99

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DECISION: REVERSED

Send Reference(s): Yes No
or Translation(s)

Panel Change: Yes No

3-Person Conf. Yes No

Remanded: Yes No

Brief or Heard

Group Art Unit: 1700

Index Sheet-2901 Rejection(s): _____

Acts 2: ____

Palm: ____

Mailed: Updated Monthly Disk (FOIA): ____

Updated Monthly Report: ___